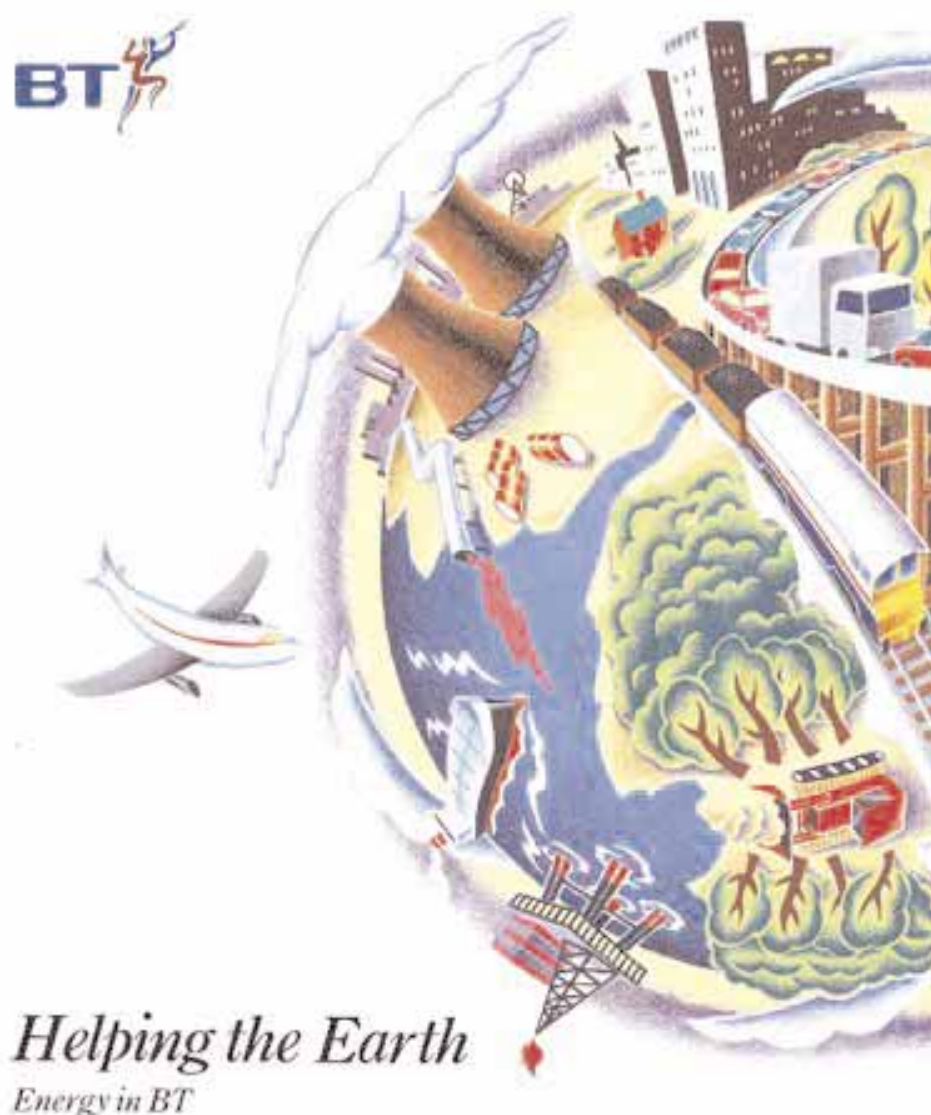


Energy management – staff awareness

British Telecommunications plc

- Company's energy awareness campaign targeted over 165 000 employees
- Campaign prepared the way for a programme that aims to cut total energy consumption by 15% within 5 years, saving over £16 million/year



ENERGY EFFICIENCY

BEST PRACTICE
PROGRAMME

BRITISH TELECOMMUNICATIONS PLC

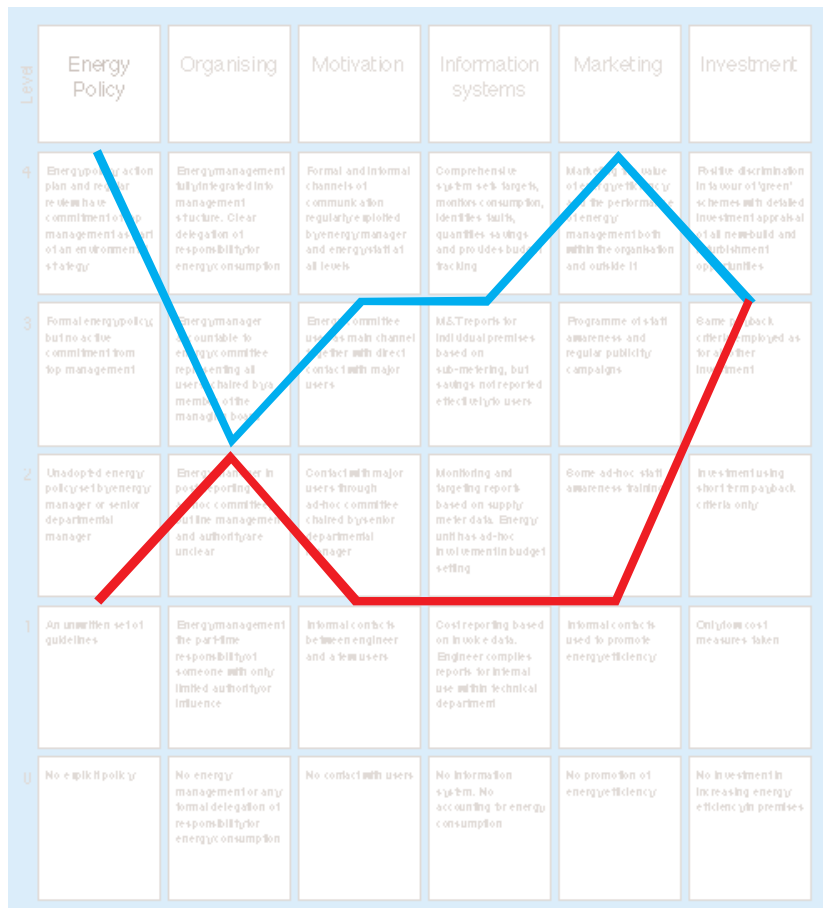


Figure 1 Energy management matrix, showing improvement in BT's energy management capability between 1993 and 1995 (before and after the energy awareness campaign)

■ 1993 ■ 1995

INTRODUCTION

This Case Study explains how British Telecommunications plc (BT) organised a successful campaign to raise employee awareness regarding the need for energy efficiency.

BT management estimated, in the early 1990s, that a well informed and highly motivated workforce could reduce the company's energy consumption by a significant amount through simple good housekeeping measures, costing little or nothing to implement. The energy awareness campaign, launched in late 1993, was therefore seen to be an essential ingredient in a corporate energy management programme that aims to reduce BT's energy consumption by 15% over five years, starting in April 1992.

An indication of the campaign's success was the interest shown in the booklet and demand for the video. The competition associated with the booklet and in house magazine 'BT Today' received some 5000 entries. There was a significant reduction in BT's energy bills, due to a combination of new contracts, estate rationalisation and partly due to the increased awareness and motivation of staff. Moreover, a survey confirmed that a distinct change for the better has been achieved in staff attitudes to energy use.

This can also be seen by comparing BT's energy management performance before and after the campaign using the energy management matrix, left. For an explanation of the matrix, see box on page 4.

However, BT recognises that a major challenge with any energy awareness campaign, is to maintain its momentum into the future. It is therefore building on this early success by undertaking a number of more targeted initiatives that aim to strengthen and sustain the culture change that has already been achieved.

This Case Study reports on the methods adopted by BT in its staff awareness campaign, the results achieved, and plans for the future.

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BACKGROUND

BT is one of the world's 500 largest companies. By the early 1990s it was employing some 240 000 people; occupying over 9000 buildings (distributed throughout the UK); and spending about £130 million/year on energy.

Energy consumption had doubled in the 1980s, caused mainly by a massive expansion of the company's network and services. About half of BT's energy consumption is related to the fundamental needs of the telecommunication network; the remaining half is controllable and provided opportunities for savings.

Consumption stabilised in the early 1990s, and by 1995 the cost of energy had fallen to about £115 million/year. This reduction was due to a combination of energy efficiency measures affecting consumption, and reductions in the price of electricity.

BT became a signatory of the Department of the Environment's (DOE's) Making a Corporate Commitment (MACC) campaign in 1992. In 1993 it was one of the first major companies to receive accreditation from the Institute of Energy for achievements in energy efficiency.

As a MACC signatory, BT is committed to responsible energy management and to promotion of energy efficiency throughout its operations.

ENERGY MANAGEMENT STRUCTURE

BT has three operating divisions, with a fourth, the Support Units Division, providing central support services to the other three. Within the building services wing of the Support Units Division is a central Energy Group, headed by BT's corporate energy manager. The Energy Group interfaces with two local Building Services Customer Centres to implement energy projects for customers.

Formal energy management started within BT in 1973, with responsibilities being delegated initially to local level. Since then, there have been progressive moves to centralise policy and strategic

energy functions, and formation of the central Energy Group was a culmination of this process.

The Energy Group has three field energy managers and technicians, based at the regional customer centres, who are responsible for undertaking energy surveys and providing day-to-day support to BT premises. The Group also has a central policy arm which employs four further energy managers. These managers have discrete responsibilities for energy awareness, energy utilisation, energy costs and supply, and energy efficiency projects.

When the Energy Awareness Manager was appointed, in 1991, his first responsibility was to develop and deliver the energy awareness campaign described in this document. Since then, his main task has been to maintain the momentum, ensuring that the messages remain fresh in people's minds.

CAMPAIGN STRATEGY

The Energy Awareness Manager came from a sales and marketing background within BT. He immediately recognised that meticulous planning would be required to ensure success of the campaign, and identified the following key stages.

- Define campaign objectives
- Select promotional medium and motivational approach
- Develop a communications plan
- Present a business case
- Prepare promotional material
- Deliver campaign
- Assess effectiveness.

Define campaign objectives

The campaign was to be directed at every member of BT's staff, irrespective of their seniority or job function. To underline the potential environmental benefits, the name 'Helping the Earth' was chosen for the campaign.

The aim was to encourage a cultural change in people's attitudes towards energy efficiency, and provide practical guidance for immediate energy savings. This was seen as an essential precursor to more targeted initiatives.

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Select promotional medium and motivational approach

Because individuals can be motivated by a range of factors, it was decided that the campaign material should address the following:

- the environmental impact of using energy
- the significance of energy efficiency to BT
- practical guidance for individuals to improve their efficient use of energy both in the workplace and at home.

The link to energy efficiency and hence cost saving in the home was seen as a major opportunity for increasing staff's interest in the campaign.

A decision then had to be made regarding the best medium to use for delivering the campaign. It was decided, with the assistance of external consultants, to produce three complementary forms of promotional material:

- a campaign booklet
- a campaign video
- posters.

The specially produced booklet was to provide the backbone of the campaign, with individual copies being sent to each member of staff. Booklets were chosen as a cost-effective means of presenting information to a large target audience. Furthermore, staff could retain their booklets for future reference.

No matter how well designed, however, there was a risk that the booklets alone might not engender the required level of interest amongst BT staff. It was therefore decided to produce a video which would be shown to staff at monthly team meetings.

Finally, a range of posters was proposed to act as a constant reminder of the campaign and its messages.

Develop a communications plan

Considerable thought was given to the requirements for effective communication throughout all stages of the campaign. Of critical importance was the question of who should deliver the local briefings, as the Energy Group had insufficient manpower resources itself.

ENERGY MANAGEMENT MATRIX

The energy management matrix is a simple diagnostic tool which is central to the DOE's Energy Efficiency Best Practice publications on the organisational aspects of energy management. DOE General Information Reports 12 and 13 ('Aspects of energy management' and 'Reviewing energy management') describe in detail how the matrix should be used.

The matrix provides a quick, easy-to-use but effective method for organisations to identify and describe the current priority they attach to different aspects of energy management.

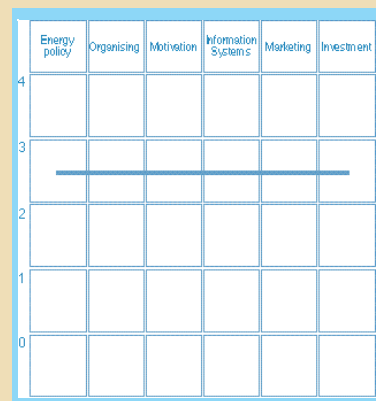
Each vertical column of the matrix deals with one of six key issues, namely energy policy; organising; motivation; information systems; marketing; and investment.

The ascending rows, from 0 to 4, represent increasingly sophisticated handling of these issues.

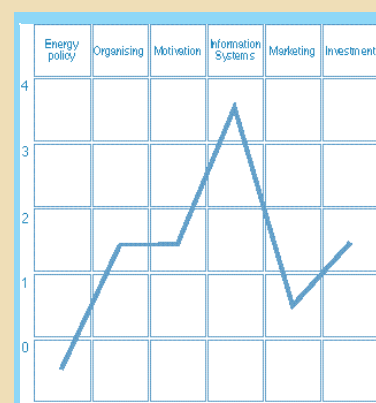
The objective is to achieve a balanced improvement across the columns, and to reach as close to the top as possible.

Examples of a balanced and an unbalanced matrix are shown above right. Also shown, right, is an average profile, calculated from the profiles drawn by over 1500 energy managers in a wide variety of public and private organisations throughout the UK.

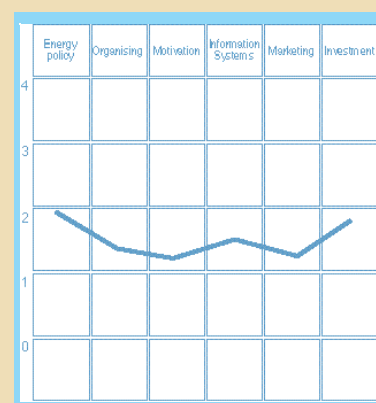
Comparing this with the matrix in figure 1 on page 2 clearly shows that BT has achieved a high standard in its energy management activities.



Example of a balanced matrix



Example of an unbalanced matrix



Average profile

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BT's operational structure is built around a number of 'teams', and team briefing meetings are held regularly as part of the company's quality management system. The briefings are led by second-line managers, who are typically responsible for around 300 staff.

It was therefore decided to use the second-line managers to present the energy awareness campaign as part of their routine team briefings. As these managers were operational staff, it would be necessary to seek approval from their divisional managers and also to provide comprehensive briefing material to enable them to undertake the task. The following communications plan was proposed:

- presentation and briefing to all divisional communications managers
- presentation and briefing to all building services customer centre managers
- 'press releases' placed in BT's in-house magazines and news bulletins
- briefing packs sent to all second-line managers
- campaign booklets distributed to each member of staff
- team briefings by second-line managers
- formal feedback on results of team briefings
- an environmental supplement in BT's general staff newspaper ('BT Today') to include an energy awareness competition, with answers to be found within the campaign booklet
- independent review of campaign results by BT's corporate relations department
- ongoing to the national campaign, BT's field energy managers to encourage local awareness initiatives and continue the energy surveys.

Present a business case

Although BT was committed in principle to undertaking the campaign, the Energy Awareness Manager still needed to prepare a business case in order to secure funding for his specific proposals. Establishing a detailed financial case for an energy awareness campaign can be difficult, because the payback potential is so uncertain, so in this case a very simple but effective approach was adopted.

The Energy Group had calculated that about £54 million of BT's annual energy bill was 'controllable' through energy efficiency measures.

The budget for the awareness campaign was £100 000, and the business case highlighted that, if only 1% of the controllable energy costs were saved (equivalent to £540 000), then the campaign would pay for itself within three months.

Financial approval was quickly given, with funds made available from the central Building Services budget.

Prepare promotional material

The campaign booklets have 16 colourful, easy-to-read pages. The first few pages explain why finite resources and environmental effects should make everybody more careful in their use of energy. This is followed by sections that provide simple, common sense guidance on specific good housekeeping measures that will help to save energy, both at work and in the home. Over 165 000 booklets were printed.

The campaign video was produced by a private production company and lasts 13 minutes. The video is essentially in two parts. The first part deals with the impact of energy usage on the global environment and BT; and the second part illustrates typical areas of wastage. By using examples from telephone exchanges, offices and motor transport depots, the video attempts to 'strike a chord' with all BT staff. Two-thousand copies of the video were made.

Three poster designs were produced, using material taken directly from the campaign booklet.

The campaign's 'Helping the Earth' theme was prominently used throughout all promotional material. A common style of artwork was also adopted in order to establish a strong identity for the campaign.

Deliver campaign

The campaign was delivered over the period November 1993 – February 1994 and the final cost (excluding BT staff time) was within budget at £97 000. This comprised:

Video production	£39 000
Literature production	£40 000
Distribution costs	£8 700
Consultancy fees	£8 300
Competition prizes (mountain bikes)	£1 000
TOTAL:	£97 000

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Assess effectiveness

During the 12 months following the campaign, BT's electricity consumption reduced by an estimated equivalent 3-6% of controllable energy. BT believes that the awareness campaign partly contributed to these savings. It is difficult, however, within a constantly changing commercial organisation, to directly associate savings of this level with any particular cause. In reviewing the effectiveness of its campaign, therefore, BT sought to use a range of alternative yardsticks.

One of these was an assessment of the many energy efficiency ideas that were generated as feedback from the team briefings. Typical is the case of a 24-hour control centre that was leaving all of its 30 computers on continuously. Following the campaign, staff checked the need for this and discovered that only four terminals were required to be left on overnight. Significant savings were made by replicating these measures in other centres.

An independent review was also undertaken by BT's own Corporate Relations Department who, in conjunction with external consultants, reviewed staff's perception of the campaign. Their findings included the following:

- 86% remembered the energy awareness campaign
- of these, 81% had read the booklet
- 85% registered a positive reaction to the video
- 65% believed their team had taken action during the campaign to reduce energy usage at work
- 49% believed their team would continue to make such efforts in the future
- 78% believed the campaign had generally brought about a change in energy efficiency culture amongst BT staff.

Overall, all assessments indicated that the campaign had succeeded in meeting its objectives.

Other benefits

Conducting a high profile national energy awareness campaign has raised BT's profile (both locally and nationally) as an environmentally conscious company.

Considerable interest has also been shown in the campaign video and approaches have been made from a number of organisations (ranging from local schools through to one foreign government) with a view to licensing its use for other awareness campaigns.

The Future

Having succeeded in increasing staff receptiveness to energy efficiency, BT is planning a number of more targeted training initiatives, spread over the next 3 years. BT recognises that one of the major challenges of any energy awareness campaign is to maintain its momentum into the future.



The campaign covering both marketing and technical aspects was managed by Graham Blankley and Angus Berry.

The Department of the Environment's Energy Efficiency Best Practice programme provides impartial, authoritative information on energy efficiency techniques and technologies in industry and buildings. This information is disseminated through publications, videos and software, together with seminars, workshops and other events. Publications within the Best Practice programme are shown opposite.

For further information on:

Buildings-related topics contact:
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For industrial topics contact:
Energy Efficiency Enquiries Bureau
ETSU
Harwell, Oxfordshire,
OX11 0RA
Tel 01235 436747
Fax 01235 433066

Energy Consumption Guides: compare energy use in specific processes, operations, plant and building types.

Good Practice: promotes proven energy efficient techniques through Guides and Case Studies.

New Practice: monitors first commercial applications of new energy efficiency measures.

Future Practice: reports on joint R & D ventures into new energy efficiency measures.

General Information: describes concepts and approaches yet to be fully established as good practice.

Fuel Efficiency Booklets: give detailed information on specific technologies and techniques.

Energy Efficiency in Buildings: helps new energy managers understand the use and costs of heating, lighting etc.